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ABSTRACT

5 A magneto-resistive effect memory element according
to the present invention includes a first ferromagnetic
film; a second ferromagnetic film; a first nonmagnetic film
provided between the first ferromagnetic film and the second
ferromagnetic film; a first conductive film for generating
a magnetic field for causing magnetization inversion in at
least one of the first ferromagnetic film and the second
10 ferromagnetic film, the first conductive film not being
electrically in contact with the first ferromagnetic film
or the second ferromagnetic film; and a second conductive
film and a third conductive film for supplying an electric
current to the first ferromagnetic film, the first
15 nonmagnetic film, and the second ferromagnetic film. The
first ferromagnetic film and the second ferromagnetic film
have different magnetization inversion characteristics
with respect to the magnetic field, and the first nonmagnetic
film contains at least a nitride.

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